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TITLE : FORMATION OF SOLID PARTICLE MEMBRANE

ABSTRACT : PURPOSE: To improve the regularity of solid particle arrangement by a method wherein the dispersing liquid of solid particles is brought into contact with a liquid immiscible with this dispersing medium to form a two phase liquid and the solid particles from the dispersing liquid are adsorbed on a liquid-to-liquid interface to form a single particle layer.

CONSTITUTION: The solid particles of silver halide, inorg. pigment, etc., are dispersed in a liquid using a dispersing agent such as gelatin. This dispersing medium is then brought into contact with the other liquid immiscible therewith to form a two phase liquid. When this liquid is allowed to stand, the solid particles are adsorbed on the liquid-to-liquid interface to form a single particle layer. At this time, if the interfacial tension between these two liquid phases is made smaller, the aggregation rate of the solid particles becomes smaller. The variation coefficient  $\sigma/Y'$  for the size distribution of the solid particles ( $\sigma$  is the standard deviation of the particle size and  $Y'$  is an average particle size) is set at not more than 20%, thereby enhancing the regularity of solid particle arrangement. The single particle layer thus formed is transferred onto a supporting body such as glass, ceramics and plastics.

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